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THE LOCAL KNOWLEDGE IN TRADITIONAL BAMBOO WEAVING WALL (TEPAS) OF PERAK STATE, MALAYSIA

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Abstract

Traditional weaving art in Malay culture started a long time ago. It was invented without influence from outsiders. It started using the natural material from the surrounding. Some of the Malay house in Malaysia is enveloped with weaved bamboo wall called *tepas*. *Tepas* wall is most popular in the west coast region of peninsular Malaysia especially in Perak state. However the current generations only looks and understand the *tepas* wall by it's physical (tangible) aspects as an end product. Actually, preservation of traditional heritage also involves the intangible aspects; such as the local knowledge on *tepas* wall construction. This paper will reveal the local knowledge in *tepas* wall making. The exploratory methods are implemented to gain the information as an additional support that already discuss in literatures. The paper consists more detail of traditional process of *tepas* wall making specifically in Perak, Malaysia. The discussion presents the selection of materials, the preparation, weaving methods and on-site installation also the *kelarai* motifs of *tepas* wall in Perak.

Keywords: Local Knowledge, *Kelarai*, *Tepas*

Introduction

The Malay traditional building in Malaysia is made from natural materials (Nasir,AH, 1985: p 23). Apart from wood, some of the Malay house's walls are constructed from woven bamboo (Hanafi, 1996; p 94,117). *Tepas* wall is a handcraft element of the Malay traditional house. The pattern produced by the woven bamboo on *tepas* wall called *kelarai*. Traditional Malay house design interpreted strong aesthetic values and cultural influence, which are relatively patterned from the Malay's creative attitudes together with their sensitivities and intimate relationships with their surroundings (Zuhairuse Md Darus et al, 2008; p 1109). There are a lot of *kelarai* motifs on the old *tepas* wall in Perak created by the *tepas* craftsmen. In the field of *architecture*, traditional craftsmanship is especially embodied in construction techniques and architectural ornamentation in historic buildings. The bamboo weaving and the construction method for traditional house is part of the conservation process. The material and construction method are the most an authentic criterion in the conservation of heritage and traditional buildings (Harun, SN. 2010). This construction technique is considered an important value because it brought together knowledge and skills. This value is an intangible aspect that very important to be documented and preserves. (Karakul, O. 2015).

Tepas Wall in Perak, Malaysia

The state of Perak Darul Ridzuan is one of the 13 states of Malaysia. It is the second largest state in Peninsular Malaysia, bordering Kedah to the north, Penang to the northwest, Kelantan and Pahang to the east, and Selangor to the south. To the west is the Straits of Malacca. In Malaysia *tepas* wall have begun to be used by the Malays in Malaysia over the last century. This can be proved through old literatures and paintings, especially recorded by the English colonist. Traditional building enveloped *Tepas* wall can be found used in almost every part of

Malaysia. In the Perak state of Malaysia, *tepas* wall is one of their prominent identity. Perak is the only state in Malaysia that using *tepas* wall on a royal building such as palace and mosque (Syed Ahmad Jamal, 1992)



Figure 1: State of Perak
Source: www.malaysiavacationguide.com



Photo 1 & 2: Kampung Kuala Dal Old Mosque and Kenangan Palace at Kuala Kangsar, Perak. These two buildings are constructed with bamboo wall.

According to the former *tepas* makers in Perak, there is a traditional wall that also made from flattened bamboo wall according to a certain size. This type of bamboo wall is more simple with no weaving pattern (*kelarai*).



Photo 3: Simple Flatten Bamboo wall. Source:K.M. Wong, 1995

Most of the *tepas* wall is made from split bamboo. The bamboo is cut and ripped to a certain size and the thickness becomes strip. The rough cutting of the bamboo is dipped into mud for one day to preserve the bamboo from decaying agents. The dried bamboo strips are planed to a certain thickness process called *raut* before weaving process. The *kelarai* weaving of the bamboo strips on *tepas* wall run in 90 degree cross orientation. The vertical and horizontal bamboo strips are differentiated by frontal faced and rear faced. These frontal and rear faces show different grain effects and colors. This arrangement creates two tones of *kelarai* motifs. Most of the traditional buildings or houses that use *tepas* wall are in their natural color of bamboo compared with Istana Kenangan that used *bertam* (*Eugeissona trists*) material finished with paint (Afzanizam, p 42: 2008). There are a lot of *kelarai* pattern in Perak but the most popular is called *bunga cina*, *bunga tanjung*, *panca delima* and *siku keluang*(bat elbow)(Norhasandi Mat, 2009). Some of it is painted in various colors rather than natural color of bamboo (Syed Ahmad Jamal, 1992: p 101).

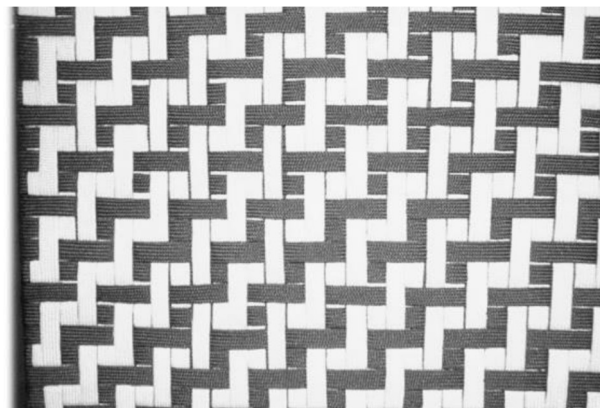
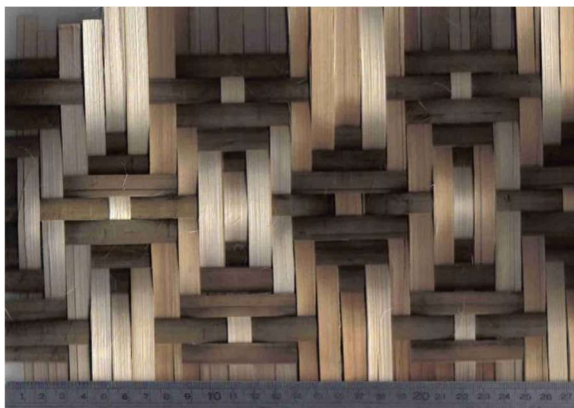


Photo 4 & 5: Examples of *kelarai* motif. *Panca Delima* motif (left) and *Siku Keluang* motif (right)

Buluh gading with Ivory colored yellow bamboo and *buluh minyak* (waxed bamboo) green bamboo with yellow strips can be found in a wild are also can be used to make *tepas* wall. '*Buluh leman*' (*brachycladum*) are the most planted species in the villages around Perak. This species of bamboo are purposely planted by villagers. This species of bamboo can be identified through its leaf petals. It is the most popular and suitable to make *tepas* wall cause of its full green color.



Photo 6: *Lemang* Bamboo (left) and Yellow Bamboo (right). Source K.M Wong, 1995.

The Local knowledge in *Tepas* Wall Making

Local knowledge or other synonyms term is traditional knowledge are generally referring to the traditions and practices of certain indigenous peoples or local communities. In many cases, traditional knowledge has been orally passed for generations from person to person. Some forms of traditional knowledge are expressed through stories, legends, folklore, rituals, songs, art, and even laws. Other forms of traditional knowledge are often expressed through different means (Kothari, A. 2007). Karakul (2012), has highlighted in his research; the traditional ways of building in historic environments are the product of the master builder's knowledge and creativity in using local building materials, as well as in handling environmental features. Traditional building methods have been transferred from generation to generation through master-apprentice relationships for centuries. In this regard, the local knowledge of on know-how, the skills and knowledge of local builders and craftsmen should be documented.

From the observation that have been done, the process of the *tepas* wall according to the traditional method can be divided into five phases as below:

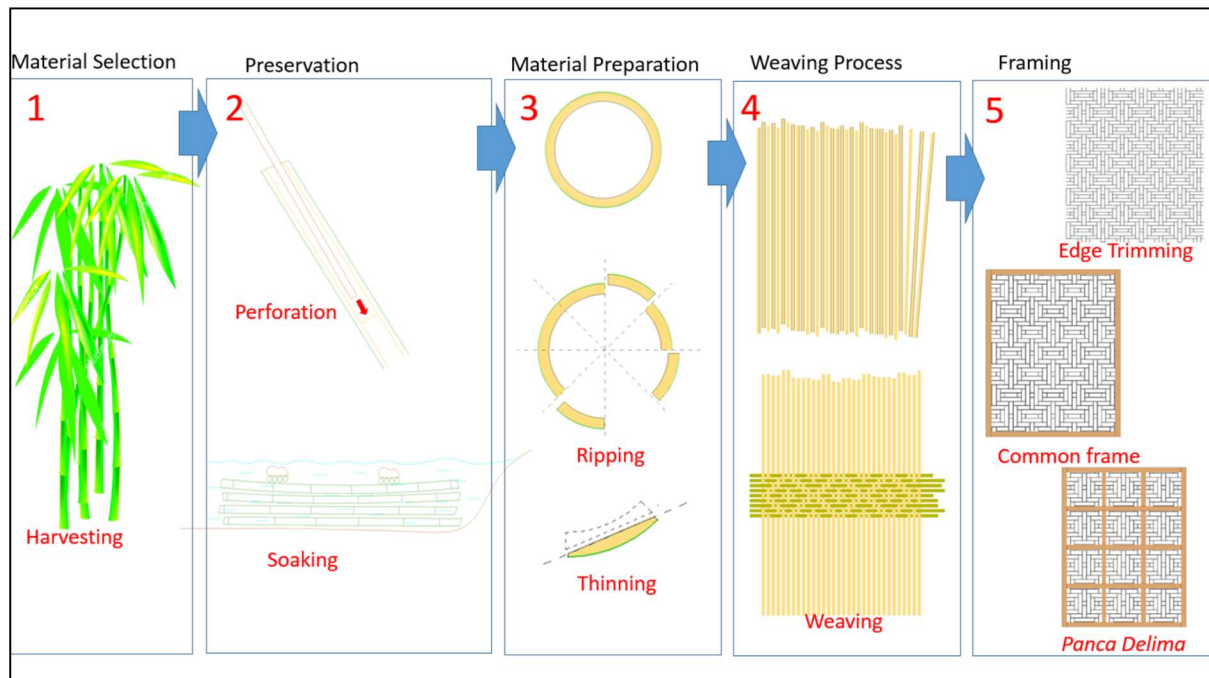


Figure 2: The traditional methods in *tepas* wall making.

Material Selection

Selecting the most suitable bamboo is important because of several reasons. The bamboo that selected must be matured enough because it has consistent in color and almost the same diameter. These are to ensure the quality of *tepas* pattern appearance at the end of the process. The matured bamboos can be identified through its color and texture. The matured bamboo has enough strength. Once felled, the young part on top is cut.

Bamboo Preservation

The internal wall of the bamboo is poked using a long wooden or bamboo stick to avoid a gas trapped in the bamboo segments. This is to ensure the bamboos easily drowned during the soaking process. During the soaking process, the bamboos are tied with rope and heavy stones to make it fully sink to the bottom. There are some references that have been written that the bamboo soaked in mud or paddy fields (Afzanizam Muhammad, p 19: 2008). The soaking process took about a week. The purpose of soaking process is to preserve the bamboo from insect and fungus attack. It also will make the bamboo easy to ripping and give more flexible property.

Material Preparation

After about a week of soaking, the bamboo is naturally seasoned under open weather. The dried bamboo is ripped to eight parts using special knife called *parang* to produce bamboo strip with size of approximately 1 inch wide. The ripping orientation is start from the end-to-base of the bamboo trunk. This method is easier to ripping and produce a consistent shape and straight of bamboo strip sheets compared the opposite orientation (base-to-end). The next process is thinning or planed of the bamboo strip sheet called *meraut* before weaving process. The purpose of *meraut* is to peel the internal layer of bamboo which stained course of soaking

process. This will make the surface become cleaner and brighter color, the outer skin of the bamboos is remained which is darker tone. The purpose of remaining the outer skin is because it has more strength. The other purpose is to produce the two-tone effect on *kelarai* pattern later. This will make the bamboo strip thinner and more flexible. The thinner bamboo strip sheet will reduce the effect of holes occurred on *tepas* wall and the weaving will fasten and neat.

Weaving Process

The *kelarai* weaving of the bamboo strips the bamboo strips of *tepas* wall run in 90-degree cross orientation. The vertical and horizontal bamboo strips are differentiated by frontal face and rear face. This frontal rear faces shows different grain effects and colors. This arrangement creates two tons of *kelarai* motifs. Most of the traditional buildings or houses that use *tepas* wall are in their natural color of bamboo compared with Kenangan Palace in Kuala Kangsar that made form species of palm called *bertam* and finished with paint. (Afzanizam Muhammad, p 21: 2008)

Woven process should start from the center and bring up and down. This is to ensure the vertical strip sheet stand rigidly not moving during the process of weaving. The vertical strip will become tighten after a few horizontal strips weaved. Each woven strip sheets will be tapped with timber before weaving the next strip. The tapping method is to prevent any holes occurred at the complete process. It also makes the finish product more smooth and sturdy.

Installation

The last step before installing on the building is making the frame of the *tepas* panel. The frame is made from solid timber strips that sandwiched the *Kelarai* weaving to hold the bamboo strips. Before the framing, the excess bamboo strip sheets on the edge of woven *tepas* are trimmed. The finish *tepas* panel normally are in square and rectangular in shape but some is found with repetition of additional wooden frame installed according to each *kelarai* pattern order on *tepas* wall called by the locals as *panca delima* motif or diamond motifs (Norhasandi Mat. P 224; 2009). This method can increase the rigidity of the wall as well as aesthetics. However, there is a triangular shaped of *tepas* panel with wooden frames made. This form of *tepas* panel is used as a part of Malay house gable wall (*tebar layar*).

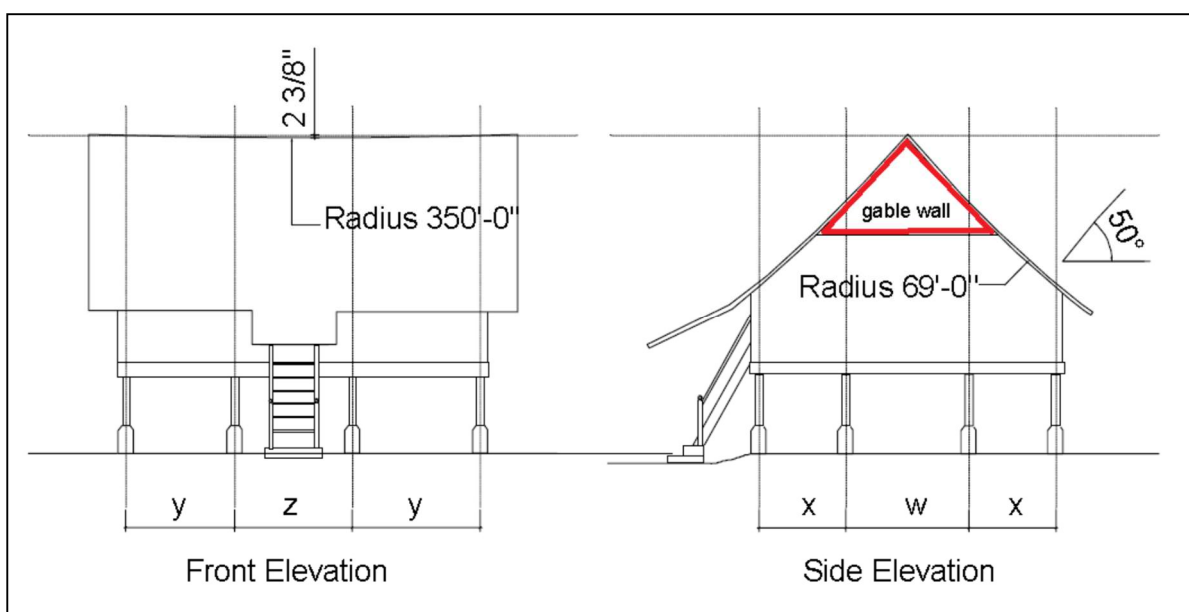


Figure 3: The gable wall located on traditional Perak house.
Source Anuar Talib, Mohd Nor Ariffin: 2004

Conclusion

The thorough information and knowledge is important to ensure the 'intergenerational transmission' in this cultural heritage. The local knowledge on *tepas* wall making is the essence of this study that will be documented and used as references in any conservation work that involve *tepas* wall. There is a lot of *kelarai* motifs can be created depends on the craftsmen creativity. In the contemporary era, the use of *tepas* wall can be explore apart from wall function such as ceiling, door and window panel. The commercial value of *tepas* can be developed to promote the local character. This is important to ensure this heritage will not extinct and can be appreciate by future generations.

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